

REMARKS

The office action indicates that the first material is the material 44 and that the trench filling material is the material 74 deposited into the trench. In fact, the material 74 is a combination of all the materials according to the specification. See column 5, lines 42-44. In fact, the trench filling material is the material 72 that is deposited over the polishing material 36.

The claim requires that the semiconductor structure have a planar exposed upper surface formed of the first material and the trench filler material. In Figure 13, there is a planar surface made up of the material 46 and the material indicated to be 74. It cannot include any of the material 44 which is hidden away from the upper surface. Therefore, the claim limitation “having a planar exposed upper surface formed of a first material and the trench filler material” is not satisfied.


This seems to be admitted further on on page 3 where it is noted that “Pan et al. do not show the trench filler material and the first material having an exposed planar surface. However, it is noted that Pan teaches that it would be desirable to develop a method for forming a field isolation region with a substantially flat upper surface, without the requirement of the extra masking step required to form the photoresist block 30 in Figure 5. But this does not teach creating a planar exposed surface formed of both the first material and the trench filler material. It teaches what is shown in Figure 13, which is a planar surface indicated at 76. The oxide isolation region is indicated as 80. See column 6, lines 25-30. Thus, it teaches the planar structure shown in Figure 13, not a planar structure in the situation shown in Figure 14. Therefore, it clearly teaches away from the claimed invention and, as a result, the single reference 103 rejection fails to meet the claimed limitations.

In other words, Pan does not teach any rationale to modify to meet the claimed limitations. He teaches a rationale to do exactly what is shown in Figures 13 and 14 and that is exactly what the Examiner already concedes is different from what is claimed. A rationale to do exactly what Pan does does not teach a rationale to do something different than what Pan does and what is claimed in the present application.

Therefore, reconsideration would be appropriate.

Respectfully submitted,

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